

Appendix D: Cost-Effectiveness Results

As cited in the Energy Efficiency Policy Manual, “**Cost Effectiveness is an indicator of the relative performance or economic attractiveness of any energy efficiency investment or practice when compared to the costs of energy produced and delivered in the absence of such an investment.**”¹

The Commission requires the portfolios to pass a dual cost effectiveness test. The portfolios must provide positive net benefits based on two cost effectiveness tests: the Total Resource Cost test (TRC) and the Program Administrator Cost test (PAC). Since the TRC costs are generally greater than PAC costs, in practice this dual requirement results in the TRC being the primary indicator of energy efficiency program cost effectiveness.

¹ Energy Efficiency Policy Manual, Version 4; p2, http://www.calmac.org/events/EE_Policy_Manual_v4_0.pdf

On an evaluated basis, every dollar invested in energy efficiency through the IOUs' 2010-2012 energy efficiency programs resulted in \$1.04 in benefits, through the TRC test “lens,” and one dollar and \$1.66 in benefits based on the PAC test lens. The definition of each of these cost effectiveness tests and how they are used to evaluate the cost effectiveness of the portfolio are discussed in this appendix.

Cost-Effectiveness Tests

The TRC measures the net resource benefits to all ratepayers by combining the net benefits of the program to participants and nonparticipants. The benefits are the avoided costs of the supply-side resources either avoided or deferred. The TRC costs encompass the cost of the measures or equipment installed [by the customer] and the costs incurred by the program administrator for both resource and non-resource program activities.

$$\text{TRC} = \frac{\text{Benefits} = \text{Net Present Value of avoided costs of supply-side resources avoided}}{\text{Costs} = \text{Net Present Value of Measure Costs paid by participants and program administrators} + \text{non-rebate costs incurred by program administrators}}$$

The PAC test measures program benefits in the same way the TRC test does, except that only those costs incurred by the program administrator are included (i.e., measure costs paid by the participating customers are not included).⁵

$$\text{PAC} = \frac{\text{Benefits} = \text{Net Present Value of avoided costs of supply-side resources avoided}}{\text{Costs} = \text{Net Present Value of all costs incurred by program administrators}}$$

Because costs are specific to programs and it is not possible to disaggregate the benefits and costs to specific levels of measures or market sectors in a meaningful way, this report provides portfolio- and program-level cost effectiveness estimates. Appendix A, Table A-I presents the cost effectiveness of the portfolios as a whole; program level cost effectiveness estimates are provided in Tables 14-17. The costs included in the TRC test remove the measure costs to free-rider participants, since the benefits associated with those participants are excluded as well.

Two additional costs were added to the both the TRC and PAC cost effectiveness calculations after processing utility reported and the evaluation updated values. First, the Energy Savings Performance Incentive (ESPI) has been added. Second, a correction in the rebated costs was made for instances in which the rebates for measures exceeded the measure cost, which results in a “negative cost” in the cost effectiveness calculator (essentially, the payment of a rebate to participants that exceeds the cost of the measure appears as a benefit in the calculator without this post-processing correction). These two cost adjustments are described in further detail below.

Shareholder Incentives for 2010-2012

The Commission adopted a shareholder incentive mechanism that applied for the 2010-2012 period, in D.12-12-032. The shareholder incentive costs are added to the TRC and PAC costs. The source of the costs are derived from the payment claims the utilities have submitted to the Commission. These reflected a 5 percent management fee plus up to an additional 1 percent conformance with ex ante policy. The awards were calculated from the expenditures verified in the Commission’s audit.

For 2010-12, all shareholder incentives have been approved by Commission. The awarded amounts are noted in Table D-I.

Table D-I Shareholder Incentives by IOU

	2010 ^a	2011 ^b	2012 (requested) ^c
PG&E	\$21,037,091	\$21,561,992	\$23,355,268
SCE	\$15,074,939	\$13,554,610	\$16,194,377
SDG&E	\$3,331,920	\$3,904,664	\$5,094,686
SoCalGas	\$2,701,870	\$3,075,647	\$4,326,851
Total Payments	\$42,145,820	\$42,096,913	\$48,971,182

^a D.12-12-032 at page 50.

^b Resolution G-3491 (PG&E, SDG&E, and SoCalGas awards), approved December 6, 2013.
Resolution E-4633, (SCE awards) approved December 19, 2013.

^c Resolution G-3497 (PG&E, SDG&E, SoCalGas awards), approved December 18, 2014.
Resolution E-4700 (SCE awards), approved December 18, 2014.

Rebate Costs Exceeding Incremental Measure Costs

Commission policy does not expect, except in rare situations, that rebates² paid to participating customers for measure installations will exceed the gross measure installation cost³ as defined by policy⁴. However, if this situation is proposed by a utility (a proposed rebate that exceeds the measure cost) it is expected to undergo explicit Commission staff review and approval. The claims submitted by the utilities for their 2010-2012 portfolios included a significant number of claim records for which the value of the reported rebate paid to a customer exceeded the gross measure cost. In these cases the cost effectiveness calculation results in a “negative participant net cost”. For example, if the rebate to the customer was \$100 and the measure cost was only reported as \$70 then the participant cost is calculated as -\$30.

This relationship, when not reflecting true and appropriate or accurate values, erroneously decreases the total TRC cost of the portfolio, in effect “hiding” real costs that are revenue requirements to operate the programs. The estimated impact of this error for the full 2010-2012 portfolio is \$28.6 million. The impact per utility is shown in the following table. The corrected costs have been added to the portfolio and the TRC ratios recalculated.

2 D.08-01-006 at 10: “The definition of the INC term, as set forth in the SPM, is restricted to “dollar benefits” such as rebates or rate incentives (monthly bill credits) paid by the sponsoring utility to the customers participating in the program”

3 D.12-05-015 at 349: “As with all measures, our policy expects that incentives offered for early retirement will not exceed the actual early retirement cost.”⁴⁹⁵ footnote: ⁴⁹⁵ “EEPMv4, Rule IV.4”

4 Policy defines the TRC measure cost as either an incremental, full, or discounted full plus incremental measure installation cost depending upon the measure classification as normal replacement/replace on burnout/new construction, add-on retrofit, or early retirement respectively. See D.12-05-015 at 349.

Table D-2 Excess Rebate Cost Corrections to Claimed Costs*

	Cost Claimed	Sum of Error – Excess Rebates	Corrected Cost
PGE	\$1,596,159,470	\$19,281,414	\$1,681,395,236
SCE	\$1,376,850,264	\$5,531,325	\$1,427,205,515
SCG	\$336,223,853	\$695,547	\$347,023,768
SDGE	\$336,148,051	\$3,118,504	\$351,597,826
Portfolio	\$3,645,381,639	\$28,626,791	\$3,807,222,345

*Costs are TRC Costs, Numbers do not include C&S benefits or costs

Cost Effectiveness of the 2010-2012 Programs

The impact evaluations conducted by the Commission do not include analysis of program or measure costs or cost effectiveness per se. The cost effectiveness results presented in Table 13 are calculated based on the monetized benefits of the evaluated net energy savings, compared to the incentive and program costs according to existing rules and do not include any external benefits generated by these programs. Indirect savings estimated by studies of the marketing and outreach, education and training programs, and the savings attributable to the utilities' pre-2005 codes and standards advocacy program, are also not included in the cost effectiveness calculations per Commission direction.

The shareholder incentive payments, the corrected "negative costs" resulting from rebates that exceeded measure costs, and the codes and standards advocacy program in 2010-2012 are included in the cost effectiveness calculations provided in Table D-3

Context of the Results

The cost effectiveness rules that guide California energy efficiency planning and evaluation are outlined

in more detail in the Standard Practice Manual. These rules are embedded in the cost effectiveness calculators that are used for reporting program accomplishments and planning programs. The rules reflect current Commission policy for assessment of the cost effectiveness of these program activities.

Certain limitations with incremental measure cost data affected the accuracy of the cost effectiveness calculations presented here. These include data quality issues associated with program tracking data as well as deemed estimates for incremental costs that are out of date and may have led to both over- and under-estimates of the incremental measure costs. The largest error has been corrected, as noted above, and corrections at the measure level will be made in the future.

Likewise, the long-term savings benefits may not be accurately reflected by the simple extrapolation of first year energy savings over the expected useful life of the technology. The "dual baseline" effects can both over- and under-estimate long-term savings and consequently distort the real value of the resource. Dual baselines were captured in the 2010-2012 cost effectiveness calculator and were modeled for the non-residential lighting and other program areas where appropriate.

The benefits for these programmatic activities do not consider the potential long-term market effects of the energy efficiency programs. Similarly, short term participant or non-participant spillover effects were not included in the 2010-2012 program period but will be included in the 2013-2014 program cycle savings for the first time. Long term market effects can include program effects on end user decision making (e.g. changes in knowledge and awareness), trade ally practices (e.g., changes in product availability and marketing), and changes in energy efficiency and product

and service characteristics (e.g. changes in product costs and features). The primary focus of the 2010–2012 impact evaluations was on the estimation of the immediate and direct impacts of the 2010–2012 programs and the cost benefit calculations reflect those requirements. While the inclusion of market-driven effects could result in higher benefit-cost (B/C) ratios it could also result in a lower level of estimated net savings for utility programs even though total societal savings from both utility program and market forces are significant.

Table D-3 IOU Reported and Commission Evaluated Cost Effectiveness

IOU	CE Test	Reported			Evaluated					
		Benefit (M\$)	Cost (M\$)	Ratio	Benefit w/C&S (M\$)	Cost w/C&S (M\$)	Ratio (w/C&S)	Benefit no C&S (M\$)	Cost no C&S (M\$)	Ratio-no C&S
PG&E	TRC	2,310	1,596	1.45	2,238	1,825	1.23	1,595	1,681	0.95
	PAC	2,310	1,024	2.26	2,238	1,123	1.99	1,595	1,109	1.44
SCE	TRC	2,080	1,377	1.51	2,329	1,627	1.43	1,605	1,427	1.12
	PAC	2,080	834	2.49	2,329	889	2.62	1,605	885	1.81
SCG	TRC	407	336	1.21	561	379	1.48	456	347	1.32
	PAC	407	170	2.39	561	182	3.08	456	181	2.52
SDG&E	TRC	425	336	1.27	404	400	1.01	315	352	0.89
	PAC	425	208	2.05	404	225	1.80	315	223	1.41
Portfolio	TRC	5,222	3,645	1.43	5,532	4,230	1.31	3,972	3,807	1.04
	PAC	5,222	2,236	2.34	5,532	2,419	2.29	3,972	2,398	1.66

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

Table D-4 Cost Effectiveness by Program for PG&E

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2I001	Home Energy Efficiency Surveys Program	0.23	0.55	0.23	0.55
PGE2I002	Residential Lighting Incentive Program for Basic CFLs	8.59	9.30	13.01	14.09
PGE2I003	Advanced Consumer Lighting Program	1.43	1.50	3.26	3.42
PGE2I004	Home Energy Efficiency Rebates	0.53	0.53	1.86	1.86
PGE2I005	Appliance Recycling Program	0.75	0.54	0.88	0.63
PGE2I006	Business and Consumer Electronics Program	1.72	1.68	2.31	2.26
PGE2I007	Multifamily Energy Efficiency Rebates Program	0.91	0.90	1.62	1.61
PGE2I008	Whole House Performance Program	0.20	0.05	0.47	0.11
PGE2I011	Commercial Calculated Incentives	1.49	0.75	2.71	1.37
PGE2I012	Commercial Deemed Incentives	1.68	1.09	3.35	2.17
PGE2I013	Commercial Continuous Energy Improvement	-	-	-	-
PGE2I014	Nonresidential Commercial Audits Program	0.24	0.24	0.24	0.24
PGE2I021	Industrial Calculated Incentives	2.57	1.54	4.77	2.86
PGE2I022	Industrial Deemed Incentives	2.01	1.16	2.95	1.70
PGE2I023	Industrial Continuous Energy Improvement	-	-	-	-
PGE2I024	Nonresidential Industrial Audits Program	0.14	0.14	0.14	0.14
PGE2I031	Agricultural Calculated Incentives	2.10	1.10	3.29	1.72
PGE2I032	Agricultural Deemed Incentives	1.74	1.46	3.68	3.10
PGE2I033	Agricultural Continuous Energy Improvement	-	-	-	-
PGE2I034	Nonresidential Agricultural Audits Program	0.13	0.13	0.13	0.13

2010 – 2012 Energy Efficiency Evaluation Report | Appendix - D

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2I035	Agricultural Pump Efficiency Services Program	1.54	0.75	3.05	1.49
PGE2I041	Residential New Construction	0.48	0.48	0.55	0.55
PGE2I042	Savings By Design	2.55	1.20	2.80	1.32
PGE2I05	Lighting Market Transformation	-	-	-	-
PGE2I061	Upstream HVAC Equipment Incentive	1.11	1.07	1.43	1.38
PGE2I062	HVAC Technologies and System Diagnostics Advocacy	-	-	-	-
PGE2I063	Commercial Quality Installation	0.00	0.00	0.00	0.00
PGE2I064	ENERGY STAR Residential Quality Installation Program	0.24	0.24	0.27	0.27
PGE2I065	Residential Quality Maintenance and Commercial Quality Maintenance Development	0.45	0.36	0.53	0.43
PGE2I066	Workforce Education & Training	-	-	-	-
PGE2I081	Assessments	-	-	-	-
PGE2I082	Scaled Field Placement	-	-	-	-
PGE2I083	Demonstration / Showcasing	-	-	-	-
PGE2I084	Market and Behavioral Studies	-	-	-	-
PGE2I085	Technology Supply Side Efforts	-	-	-	-
PGE2I086	Incubation	-	-	-	-
PGE2I091	WE&T Centergies	-	-	-	-
PGE2I092	WE&T Connections	-	-	-	-
PGE2I093	WE&T Strategic Plan Implementation	-	-	-	-
PGE2I101	Statewide Marketing & Outreach	-	-	-	-
PGE2I102	ME&O Strategic Plan Support	-	-	-	-
PGE2I11	Statewide DSM Coordination & Integration (3)	-	-	-	-

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2112	Zero Net Pilots	-	-	-	-
PGE21131	Integrated Marketing	-	-	-	-
PGE21132	Integrated Education & Training	-	-	-	-
PGE21133	Integrated Sales Training	-	-	-	-
PGE21134	Integration Support	-	-	-	-
PGE2114	On-Bill Financing	-	-	-	-
PGE2125	Local Government Energy Action Resource (LGEAR)	0.66	0.30	0.80	0.37
PGE21251	INNOVATOR PILOTS PROGRAM	-	-	-	-
PGE21252	GREEN COMMUNITIES	-	-	-	-
PGE21261	California Community Colleges	0.75	0.40	2.10	1.12
PGE21262	University of California/ California State University	1.40	0.70	2.51	1.24
PGE21263	State of California	1.01	0.54	1.86	0.99
PGE21264	Department of Corrections and Rehabilitation	2.77	1.72	2.74	1.70
PGE2130	Association of Monterey Bay Area Governments (AMBAG) Energy Watch	1.09	0.72	1.31	0.87
PGE2131	City of San Joaquin Energy Watch	1.41	0.52	1.84	0.68
PGE2132	East Bay Energy Watch	2.20	1.19	2.73	1.47
PGE2133	Fresno County Energy Watch	2.21	0.87	3.49	1.38
PGE2134	Kern County Energy Watch	1.17	0.58	1.23	0.62
PGE2135	Madera County Energy Watch	1.86	0.78	3.39	1.42
PGE2136	Marin County Energy Watch	1.13	0.62	1.52	0.83
PGE2137	Mendocino County Energy Watch	0.72	0.30	0.86	0.35
PGE2138	Napa County Energy Watch	1.05	0.64	1.48	0.91
PGE2139	Redwood Energy Watch	1.50	0.90	1.60	0.96
PGE2140	San Joaquin County Energy Watch	1.51	0.76	1.59	0.80
PGE2141	San Luis Obispo County Energy Watch	1.01	0.51	1.05	0.53

2010 – 2012 Energy Efficiency Evaluation Report | Appendix - D

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2142	San Mateo County Energy Watch	1.01	0.48	1.35	0.65
PGE2143	Santa Barbara County Energy Watch	1.03	0.55	1.09	0.58
PGE2144	Sierra Nevada Energy Watch	1.22	0.61	1.59	0.79
PGE2145	Sonoma County Energy Watch	0.76	0.44	1.52	0.88
PGE2146	Silicon Valley Energy Watch	1.19	0.58	1.51	0.74
PGE2147	San Francisco Energy Watch	1.76	1.24	1.86	1.31
PGE2176	California New Homes Multifamily	0.90	0.90	0.88	0.88
PGE2177	Enhance Time Delay Relay	0.74	0.74	0.79	0.79
PGE2178	ENERGY STAR Manufactured Homes	0.66	0.66	0.78	0.78
PGE2179	Direct Install for Manufactured and Mobile Homes	1.98	1.98	1.98	1.98
PGE2181	Air Care Plus	1.92	1.41	2.12	1.56
PGE2182	Boiler Energy Efficiency Program	1.01	0.75	1.70	1.26
PGE2183	Comprehensive Retail Energy Management	1.16	0.47	1.39	0.57
PGE2185	EnergySmart Grocer	1.65	1.61	2.64	2.58
PGE2186	Enhanced Automation Initiative	5.18	2.76	6.13	3.26
PGE2187	Monitoring-Based Persistence Commissioning	1.06	0.50	1.68	0.78
PGE2189	Cool Controls Plus	1.99	1.96	1.99	1.96
PGE2190	LodgingSavers	1.55	1.07	1.56	1.07
PGE2191	Medical Building Tune-Up	1.14	0.49	1.20	0.52
PGE2193	School Energy Efficiency	0.93	0.74	1.32	1.05
PGE2194	Energy Fitness Program	2.44	0.93	4.08	1.56
PGE2195	Energy Savers	1.66	1.09	1.96	1.28
PGE2196	RightLights	2.27	1.01	2.27	1.01
PGE2197	Small Business Commercial Comprehensive	2.03	1.37	2.03	1.37
PGE2198	DCCCCP Quest	1.42	0.69	1.71	0.84

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2199	Energy-Efficient Parking Garage	1.37	1.35	1.58	1.56
PGE2200	Furniture Store Energy Efficiency	1.07	0.46	1.07	0.46
PGE2201	High Performance Office Lighting	1.63	1.61	1.49	1.48
PGE2202	LED Accelerator	1.23	1.20	1.06	1.03
PGE2203	Monitoring-Based Commissioning	-	-	-	-
PGE2204	SmartVent for Energy-Efficient Kitchens	1.23	1.23	1.23	1.23
PGE2205	Casino Green	1.89	1.08	1.91	1.09
PGE2206	Healthcare Energy Efficiency Program	0.39	0.20	0.44	0.23
PGE2209	Ozone Laundry Energy Efficiency	1.26	0.75	1.46	0.87
PGE2210	Cool Schools	-	-	-	-
PGE2212	California Preschool Energy Efficiency Program	1.31	0.54	1.31	0.54
PGE2213	K-12 Private Schools and Colleges Audit Retro	0.65	0.32	0.81	0.40
PGE2214	EE Entertainment Centers	0.98	0.96	1.02	1.00
PGE2220	AIM Compressed Air Efficiency	1.05	0.47	1.13	0.51
PGE2221	California Wastewater Process Optimization	0.95	0.47	1.36	0.67
PGE2222	Energy Efficiency Services for Oil Production	1.50	0.74	3.86	1.90
PGE2223	Heavy Industry Energy Efficiency Program	1.80	1.02	2.24	1.27
PGE2224	Industrial Compressed Air	2.16	0.97	2.32	1.04
PGE2225	Refinery Energy Efficiency Program	2.07	1.31	5.15	3.25
PGE2227	Cement Production and Distribution Energy Efficiency	0.06	0.03	0.07	0.03
PGE2228	Industrial Recommissioning Program	1.30	0.68	1.35	0.71
PGE2230	Dairy Energy Efficiency Program	0.76	0.71	1.83	1.70
PGE2231	Industrial Refrigeration Performance Plus	0.76	0.39	2.31	1.18
PGE2232	Light Exchange Program	1.18	1.16	1.18	1.16

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
PGE2233	Wine Industry Efficiency Solutions	0.79	0.57	1.23	0.90
PGE2234	Comprehensive Food Process Audit & Resource Efficiency Pgm	1.52	0.79	2.08	1.09
PGE2235	Dairy Industry Resource Advantage Pgm	1.42	0.75	1.69	0.89
PGE2236	Process Wastewater Treatment EM Pgm for Ag Food Processing	2.85	1.28	3.25	1.46
PGE2240	Builder Energy Code Training	-	-	-	-
PGE2241	Green Building Technical Support Services	-	-	-	-
PGE2242	Cool Cash	0.33	0.13	0.38	0.15

Table D-5 Cost Effectiveness by Program for SCE

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-L-001	On-Line Buyer's Guide	-	-	-	-
SCE-L-002	Financial Solutions	-	-	-	-
SCE-L-003	Integrated Demand Side Management Pilot for Food Processing	-	-	-	-
SCE-L-004A	City of Beaumont Energy Leader Partnership	0.26	0.15	0.27	0.16
SCE-L-004B	City of Long Beach Energy Leader Partnership	1.15	0.82	1.56	1.11
SCE-L-004C	City of Redlands Energy Leader Partnership	0.57	0.31	0.84	0.46
SCE-L-004D	City of Ridgecrest Energy Leader Partnership	0.01	0.01	0.01	0.01
SCE-L-004E	City of Santa Ana Energy Leader Partnership	0.43	0.32	1.01	0.77
SCE-L-004F	City of Simi Valley Energy Leader Partnership	0.52	0.32	0.60	0.37

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-L-004G	City of South Gate Energy Leader Partnership	0.11	0.09	0.28	0.23
SCE-L-004H	Community Energy Leader Partnership	0.76	0.53	1.39	0.97
SCE-L-004I	Desert Cities Energy Leader Partnership	0.72	0.60	1.25	1.05
SCE-L-004J	Eastern Sierra Energy Leader Partnership	0.06	0.05	0.06	0.05
SCE-L-004K	Energy Leader Partnership Strategic Support	-	-	-	-
SCE-L-004L	Kern County Energy Leader Partnership	0.38	0.24	0.40	0.25
SCE-L-004M	Orange County Cities Energy Leader Partnership	0.57	0.33	1.81	1.04
SCE-L-004N	Palm Desert Demonstration Partnership	0.62	0.49	0.78	0.61
SCE-L-004O	San Gabriel Valley Energy Leader Partnership	1.04	0.79	2.05	1.56
SCE-L-004P	San Joaquin Valley Energy Leader Partnership	0.97	0.56	1.75	1.01
SCE-L-004Q	South Bay Energy Leader Partnership	0.59	0.39	1.08	0.71
SCE-L-004R	South Santa Barbara County Energy Leader Partnership	0.26	0.19	0.45	0.33
SCE-L-004Rollup	Energy Leader Partnership Program	-	-	-	-
SCE-L-004S	Ventura County Energy Leader Partnership	0.54	0.31	0.82	0.48
SCE-L-004T	Local Government Strategic Planning Pilot Program	-	-	-	-
SCE-L-004U	Western Riverside Energy Leader Partnership	0.65	0.44	0.84	0.57
SCE-L-004V	City of Adelanto Energy Leader Partnership	0.17	0.10	0.48	0.30

2010 – 2012 Energy Efficiency Evaluation Report | Appendix - D

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-L-004W	West Side Energy Leader Partnership	1.18	1.06	2.72	2.43
SCE-L-005A	California Community Colleges Energy Efficiency Partnership	0.67	0.44	1.74	1.14
SCE-L-005B	California Department of Corrections and Rehabilitation Energy Efficiency Partnership	0.60	0.37	1.35	0.83
SCE-L-005C	County of Los Angeles Energy Efficiency Partnership	0.67	0.33	1.94	0.97
SCE-L-005D	County of Riverside Energy Efficiency Partnership	0.69	0.41	0.77	0.45
SCE-L-005E	County of San Bernardino Energy Efficiency Partnership	0.73	0.53	1.27	0.91
SCE-L-005F	State of California Energy Efficiency Partnership	1.06	0.65	2.10	1.28
SCE-L-005G	UC/CSU Energy Efficiency Partnership	0.99	0.59	2.33	1.39
SCE-L-005Rollup	IGREEN	-	-	-	-
SCE-L-006	Integrated Marketing & Outreach	-	-	-	-
SCE-SW-001A	Home Energy Efficiency Survey Program	0.88	1.00	1.61	1.85
SCE-SW-001B	Residential Lighting Incentive Program for Basic CFLs	6.48	8.12	9.15	11.46
SCE-SW-001C	Advanced Consumer Lighting Program	3.08	3.06	5.74	5.70
SCE-SW-001D	Home Energy Efficiency Rebate Program	1.14	1.14	1.26	1.26
SCE-SW-001E	Appliance Recycling Program	1.53	1.03	1.53	1.03
SCE-SW-001F	Business and Consumer Electronics Program	2.90	2.85	4.00	3.94
SCE-SW-001G	Multifamily Energy Efficiency Rebate Program	1.30	1.30	1.15	1.15

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-SW-001H	Whole House Prescriptive Program	0.03	0.04	0.03	0.04
SCE-SW-002A	Non-Residential Audits	-	-	-	-
SCE-SW-002B	Calculated Incentives Program	1.05	0.62	3.27	1.92
SCE-SW-002C	Deemed Incentives Program	1.37	0.84	3.90	2.39
SCE-SW-002D	Commercial Direct Install Program	1.94	0.90	1.94	0.90
SCE-SW-002E	Continuous Energy Improvement	-	-	-	-
SCE-SW-003A	Industrial Energy Audit Program	-	-	-	-
SCE-SW-003B	Industrial Calculated Energy Efficiency Program	1.50	0.79	3.98	2.09
SCE-SW-003C	Industrial Deemed Energy Efficiency Program	1.44	0.74	3.57	1.82
SCE-SW-003D	Industrial Continuous Energy Improvement Program	-	-	-	-
SCE-SW-004A	Agriculture Energy Audit Program	-	-	-	-
SCE-SW-004B	Agriculture Calculated Energy Efficiency Program	1.22	0.67	2.66	1.46
SCE-SW-004C	Agriculture Deemed Energy Efficiency Program	1.01	0.59	1.86	1.09
SCE-SW-004D	Agriculture Continuous Energy Improvement Program	-	-	-	-
SCE-SW-004E	Pump Test Services Program	0.82	0.82	2.08	2.08
SCE-SW-005A	Savings By Design	2.41	1.44	3.59	2.14
SCE-SW-005B	California Advanced Homes	0.40	0.40	0.39	0.39
SCE-SW-005C	Energy Star Manufactured Housing	-	-	-	-

2010 – 2012 Energy Efficiency Evaluation Report | Appendix - D

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-SW-006	Statewide Lighting Market Transformation Program	-	-	-	-
SCE-SW-007A	Upstream HVAC Equipment Incentive	0.99	1.11	2.09	2.35
SCE-SW-007B	HVAC Technologies and System Diagnostics Advocacy	-	-	-	-
SCE-SW-007C	Commercial Quality Installation	-	-	-	-
SCE-SW-007D	ENERGY STAR Residential Quality Installation Program	0.02	0.01	0.07	0.03
SCE-SW-007E	Residential Quality Maintenance and Commercial Quality Maintenance Development	0.23	0.17	0.22	0.17
SCE-SW-007F	HVAC Workforce Education & Training	-	-	-	-
SCE-SW-008	CFL Adjustment	-	-	-	-
SCE-SW-009A	Technology Assessments	-	-	-	-
SCE-SW-009B	Scaled Field Placements	-	-	-	-
SCE-SW-009C	Demonstration Showcases	-	-	-	-
SCE-SW-009D	Market and Behavioral Studies	-	-	-	-
SCE-SW-009E	Technology Development Support	-	-	-	-
SCE-SW-009F	Business Incubation Support	-	-	-	-
SCE-SW-009G	Technology Test Centers	-	-	-	-
SCE-SW-009Rollup	Program Mgmt & CPUC Reporting	-	-	-	-
SCE-SW-010A	WE&T Centergies	-	-	-	-
SCE-SW-010B	WE&T Connections	0.42	0.42	0.42	0.42
SCE-SW-010C	WE&T Planning	-	-	-	-
SCE-SW-011A	Statewide ME&O	-	-	-	-
SCE-SW-011B	ME&O Strategic Plan	-	-	-	-
SCE-SW-012	Integrated DSM	-	-	-	-
SCE-SW-CFL	CFL Adjustment	-	-	-	-

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-TP-001	Efficient Affordable Housing	-	-	-	-
SCE-TP-002	Comprehensive Mobile Home	1.13	1.13	1.13	1.13
SCE-TP-003	Comprehensive Home Performance	0.05	0.03	0.06	0.04
SCE-TP-004	Community Language Efficiency Outreach	-	-	-	-
SCE-TP-005	Cool Planet	-	-	-	-
SCE-TP-006	Healthcare EE Program (HEEP)	0.77	0.41	1.93	1.02
SCE-TP-007	Livestock Industry Resource Advantage	-	-	-	-
SCE-TP-008	Comprehensive Beverage Manufacturing and Resource Efficiency	0.48	0.24	1.84	0.90
SCE-TP-009	Solid Waste Energy Efficiency Program	-	-	-	-
SCE-TP-010	Data Center Energy Efficiency	0.73	0.45	1.09	0.68
SCE-TP-011	Data Center Optimization	-	-	-	-
SCE-TP-012	Lodging EE Program (LEEP)	1.00	0.56	2.15	1.22
SCE-TP-013	Food & Kindred Products	1.63	0.80	2.43	1.19
SCE-TP-014	Primary and Fabricated Metals	1.99	0.89	3.12	1.39
SCE-TP-015	Industrial Gasses	1.15	0.64	1.39	0.77
SCE-TP-016	Nonmetallic Minerals and Products	1.30	0.68	2.41	1.26
SCE-TP-017	Comprehensive Chemical Products	0.45	0.25	0.52	0.28
SCE-TP-018	Chemical Products Efficiency Program (CPEP)	0.69	0.34	0.82	0.40
SCE-TP-019	Comprehensive Petroleum Refining	0.23	0.12	0.24	0.13
SCE-TP-020	Oil Production	1.95	1.04	3.08	1.64
SCE-TP-021	Refinery Energy Efficiency Program (REEP)	3.20	1.36	3.55	1.51
SCE-TP-023	Cool Schools	0.29	0.23	0.42	0.32

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCE-TP-024	Public Pre-Schools, Elementary Schools and High Schools	1.93	0.82	1.93	0.82
SCE-TP-025	Retail Energy Action Program (REAP)	0.74	0.60	1.58	1.30
SCE-TP-026	Commercial Utility Building Efficiency (CUBE)	0.79	0.43	1.43	0.78
SCE-TP-027	Monitoring-Based Commissioning (MBx)	-	-	-	-
SCE-TP-028	Monitoring-Based Persistence Commissioning Program (MBPCx)	-	-	-	-
SCE-TP-030	Sustainable Portfolios	-	-	-	-
SCE-TP-031	Management Affiliates Program (MAP)	1.01	0.61	1.60	0.96
SCE-TP-032	Private College Campus Housing	-	-	-	-
SCE-TP-033	Automatic Energy Review for Schools	4.55	2.45	5.71	3.07
SCE-TP-034	Sustainable Communities	-	-	-	-
SCE-TP-036	Energy Efficiency for Entertainment Centers	1.84	1.66	1.84	1.66
SCE-TP-037	Private Schools and Colleges Program	1.65	0.69	1.65	0.69
SCE-TP-038	California Preschools Program (CPEEP)	1.13	0.46	1.13	0.46
SCE-TP-0608	Coin Operated Laundry Program	0.86	0.38	0.89	0.39

Table D-6 Cost Effectiveness by Program for SCG

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCG3600	Local02 - Local Whole Home Performance	0.27	0.14	0.43	0.22
SCG3601	Local05 - Local Non-Residential BID	2.02	2.44	6.37	7.71

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCG3602	SW-AgA - Calculated	1.69	2.04	3.48	4.22
SCG3603	SW-AgB - Deemed	0.92	0.92	1.07	1.07
SCG3604	SW-AgC - Nonresidential Audits	-	-	-	-
SCG3605	SW-AgD - Pump Test & Repair	-	-	-	-
SCG3606	SW-AgE - Continuous Energy Improvement	-	-	-	-
SCG3607	SW-ComA - Calculated	0.93	1.11	4.39	5.26
SCG3608	SW-ComB - Deemed	0.87	0.87	1.01	1.01
SCG3609	SW-ComC - Nonresidential Audits	-	-	-	-
SCG3610	SW-ComD - Continuous Energy Improvement	-	-	-	-
SCG3611	SW-IndA - Calculated	2.39	2.90	7.08	8.57
SCG3612	SW-IndB - Deemed	5.23	5.98	7.40	8.46
SCG3613	SW-IndC - Nonresidential Audits	-	-	-	-
SCG3614	SW-IndD - Continuous Energy Improvement	-	-	-	-
SCG3615	SW-ResA - Multifamily EE Rebates	1.08	1.08	1.73	1.73
SCG3616	SW-ResB - Home Efficiency Rebates	0.84	0.84	2.67	2.67
SCG3617	SW-ResC - Home Efficiency Energy Survey	-	-	-	-
SCG3618	SW-ResD - Prescriptive Whole House Retrofit	0.01	0.01	0.01	0.01
SCG3619	L-InstP01 - CA Depart of Corrections Partnership	-	-	-	-
SCG3620	L-InstP02 - CA Community College Partnership	-	-	-	-
SCG3621	L-InstP03 - UC/CSU/IOU Partnership	-	-	-	-
SCG3622	L-InstP04 - State of California /IOU Partnership	-	-	-	-
SCG3623	SW-ME&OB - SW Marketing, E&O FYP	-	-	-	-
SCG3624	SW-ETA - Assessments	-	-	-	-

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCG3625	SW-NCNR - NRNC Savings By Design	1.27	1.06	2.39	1.99
SCG3626	SW-NCResA - RNC	0.40	0.40	0.59	0.59
SCG3627	SW-WE&TA - Strategic Planning & Implementation	-	-	-	-
SCG3628	SW-WE&TB - WE&T Centers	-	-	-	-
SCG3629	SW-WE&TC - WE&T Connections	-	-	-	-
SCG3630	LGovP01 - LA County IOU Partnership	-	-	-	-
SCG3631	LGovP02 - Kern County Energy Watch Partnership	-	-	-	-
SCG3632	LGovP03 - Riverside County Partnership	-	-	-	-
SCG3633	LGovP04 - San Bernardino County IOU Partnership	-	-	-	-
SCG3634	LGovP05 - Santa Barbara County IOU Partnership	-	-	-	-
SCG3635	LGovP06 - SBCCOG Partnership	-	-	-	-
SCG3636	LGovP07 - San Luis Obispo County Partnership	-	-	-	-
SCG3637	LGovP08 - Tulare Cnty-Visalia Energy Watch Prtnr	-	-	-	-
SCG3638	LGovP09 - Orange County Cities Partnership	-	-	-	-
SCG3639	LGovP10 - ILG IOU Partnership	-	-	-	-
SCG3640	LGovP11 - Community Energy Partnership	-	-	-	-
SCG3641	LGovP12 - Desert Cities Partnership	-	-	-	-
SCG3642	LGovP13 - VCREA Sub-Program Partnership	-	-	-	-
SCG3643	LGovP14 - Palm Desert IOU Pilot Partnership	-	-	-	-
SCG3644	Local01 - OBF	-	-	-	-
SCG3645	Local03 - Local Sustainable Communities (RMV)	-	-	-	-

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCG3646	Local04 - Local Strategic Develop & Integ	-	-	-	-
SCG3651	SW-HVACA - Residential Energy Star Quality Insta	-	-	-	-
SCG3652	SW-HVACB - Commercial Quality Installation	-	-	-	-
SCG3653	SW-HVACC - Commercial Upstream Equipment	-	-	-	-
SCG3654	SW-HVACD - Quality Maintenance Program	-	-	-	-
SCG3655	SW-HVACE - Technology & Systems Diagnostics	-	-	-	-
SCG3656	SW-HVACF - HVAC WE&T	-	-	-	-
SCG3657	SW-HVACG - HVAC Core	-	-	-	-
SCG3658	SW-IDSM - SW Integrated DSM	-	-	-	-
SCG3659	SW-ME&O C - ME&O Strategic Plan	-	-	-	-
SCG3660	3P-NRes1 - Steam Trap and Compressed Air Survey	-	-	-	-
SCG3661	3P-NRes2 - Energy Challenger	-	-	-	-
SCG3662	3P-NRes3 - Small Industrial Facility Upgrades	0.44	0.47	0.83	0.87
SCG3663	3P-NRes4 - Program for Resource Efficiency in Private Schools	1.07	1.10	1.27	1.31
SCG3664	3P-Res01 - On Demand Efficiency	1.65	1.65	2.08	2.08
SCG3665	3P-Res02 - HERS Rater Training Advancement	-	-	-	-
SCG3666	3P-Res03 - Multifamily Home Tune-Up	1.26	1.26	1.53	1.53
SCG3667	3P-Res04 - Multifamily Solar Pool Heating	0.14	0.14	0.15	0.15
SCG3668	3P-Res05 - Community Language Effic Outreach	-	-	-	-
SCG3669	3P-Res06 - Multifamily Direct Therm Savings	1.59	1.59	1.70	1.70
SCG3670	3P-Res07 - LivingWise	3.53	3.53	4.27	4.27

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SCG3671	3P-Res09 - Manufactured Mobile Home	2.16	2.16	2.23	2.23
SCG3672	3P-Xc01 - Gas Cooling Retrofit	0.17	0.17	0.18	0.18
SCG3673	3P-Xc02 - SaveGas Hot Water Control	2.36	2.36	2.36	2.36
SCG3674	3P-Xc03 - Upstream High Efficiency Gas Water Heater	0.60	0.60	2.56	2.56
SCG3675	3P-Xc04 - California Sustainability Alliance	-	-	-	-
SCG3676	3P-Xc05 - Portfolio of the Future (PoF)	-	-	-	-
SCG3677	3P-Xc06 - PACE Energy Savings Project	-	-	-	-
SCG3678	EM&V - Evaluation Measurement & Verification	-	-	-	-

Table D-7 Cost Effectiveness by Program for SDG&E

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SDGE3100	SW-AgA - Calculated	0.39	0.20	0.54	0.29
SDGE3101	SW-AgB - Deemed	1.05	0.89	1.23	1.05
SDGE3102	SW-AgC - Nonresidential Audits	-	-	-	-
SDGE3103	SW-AgD - Pump Test & Repair	-	-	-	-
SDGE3104	SW-AgE - Continuous Energy Improvement	-	-	-	-
SDGE3105	SW-ComA - Calculated	1.32	0.97	4.83	3.54
SDGE3106	SW-ComB - Deemed	1.60	1.15	4.34	3.11
SDGE3107	SW-ComC - Nonresidential Audits	-	-	-	-
SDGE3108	SW-ComD - Continuous Energy Improvement	-	-	-	-
SDGE3109	SW-IndA - Calculated	1.12	0.72	2.93	1.89
SDGE3110	SW-IndB - Deemed	2.03	1.24	3.20	1.96
SDGE3111	SW-IndC - Nonresidential Audits	-	-	-	-

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SDGE3112	SW-IndD - Continuous Energy Improvement	-	-	-	-
SDGE3113	SW-ResA - Residential Basic Lighting	4.39	4.37	5.09	5.07
SDGE3114	SW-ResB - Advanced Consumer Lighting	2.24	2.04	3.93	3.59
SDGE3115	SW-ResG - Business/Consumer Electronics/Plug Load	0.70	0.68	1.58	1.55
SDGE3116	Local01 - Local Whole House Performance	0.74	0.33	0.78	0.35
SDGE3117	Local03 - Local Non-Residential (BID)	1.71	1.16	4.19	2.84
SDGE3118	SW-NCNR - NRNC Savings By Design	2.02	1.13	3.15	1.77
SDGE3119	SW-ResC - Multi-Family	0.93	0.93	1.31	1.31
SDGE3120	SW-NCResB - E-Star Manufactured Homes	0.02	0.02	0.02	0.02
SDGE3121	SW-ResD - Home Efficiency Rebates	0.72	0.72	1.90	1.89
SDGE3122	SW-ResE - Home Efficiency Surveys	-	-	-	-
SDGE3123	L-InstP01 - CA Depart of Corrections Partnership	-	-	-	-
SDGE3124	L-InstP02 - CA Community College Partnership	-	-	-	-
SDGE3125	L-InstP03 - UC/CSU/IOU Partnership	-	-	-	-
SDGE3126	L-InstP04 - State of California /IOU Partnership	-	-	-	-
SDGE3127	L-InstP05 - University of San Diego Partnership	-	-	-	-
SDGE3128	L-InstP06 - San Diego Cnty Water Auth Partnership	-	-	-	-
SDGE3129	LGovP01 - City of Chula Vista Partnership	-	-	-	-
SDGE3130	LGovP02 - City of San Diego Partnership	-	-	-	-
SDGE3131	LGovP03 - County of San Diego Partnership	-	-	-	-

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SDGE3132	LGovP04 - City of San Juan Capistrano Partnership	-	-	-	-
SDGE3133	LGovP05 - Port of San Diego Partnership	-	-	-	-
SDGE3134	LGovP06 - SANDAG Partnership	-	-	-	-
SDGE3135	LGovP07 - ICLEI Partnership	-	-	-	-
SDGE3136	LGovP08 - New Cities Partnership	-	-	-	-
SDGE3137	Local02 - Local Island Program	0.42	0.42	0.42	0.42
SDGE3138	Local04 - Local Sustainable Communities (RMV)	-	-	-	-
SDGE3139	Local05 - OBF	-	-	-	-
SDGE3140	Local06 - Local Strategic Development & Integrat	-	-	-	-
SDGE3145	SW-HVACA - Residential Energy Star Quality Instal	-	-	-	-
SDGE3146	SW-HVACB - Commercial Quality Installation	-	-	-	-
SDGE3147	SW-HVACC - Commercial Upstream Equipment	-	-	-	-
SDGE3148	SW-HVACD - Quality Maintenance Program	-	-	-	-
SDGE3149	SW-HVACE - Technology & Systems Diagnostics	-	-	-	-
SDGE3150	SW-HVACF - HVAC WE&T	-	-	-	-
SDGE3151	SW-HVACG - HVAC Core	-	-	-	-
SDGE3152	SW-IDSM - SW Integrated DSM	-	-	-	-
SDGE3153	SW Marketing, E&O FYP	-	-	-	-
SDGE3154	SW-ME&O C - Strategic Plan	-	-	-	-
SDGE3155	SW-ETA - Assessments	-	-	-	-
SDGE3156	SW-ResH - Prescriptive Whole House Retrofit	0.26	0.16	0.26	0.16
SDGE3157	SW-WE&TA - Strategic Planning & Implementation	-	-	-	-

Appendix - D | 2010 – 2012 Energy Efficiency Evaluation Report

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SDGE3158	SW-WE&TB - WE&T Centers – SDERC, Food Service Cen	-	-	-	-
SDGE3159	SW-WE&TC - WE&T Connections – PEAK Program	-	-	-	-
SDGE3160	SW-NCResA - RNC	0.40	0.40	0.51	0.51
SDGE3161	3P-NRes01 - Non-Res HVAC Tune-up/Quality Installa	1.13	0.98	1.62	1.42
SDGE3162	3P-NRes02 - SaveGas Hot Water Control	2.05	2.05	2.27	2.27
SDGE3163	3P-NRes03 - Business Energy Assessment (BEA)	-	-	-	-
SDGE3164	3P-NRes06 - Energy Efficient Water Pumping	-	-	-	-
SDGE3165	3P-NRes07 - Healthcare Energy Efficiency Program	-	-	-	-
SDGE3166	3P-NRes08 - Lodging Energy Efficiency Program	-	-	-	-
SDGE3167	3P-NRes09 - Mobile Energy Clinic (MEC)	0.81	0.71	0.83	0.72
SDGE3168	3P-NRes11 - Portfolio of the Future (PoF)	-	-	-	-
SDGE3169	3P-NRes12 - Comprehensive Industrial Energy Effic	-	-	-	-
SDGE3170	3P-NRes13 - Retro Commissioning (RCx)	2.91	1.27	3.56	1.55
SDGE3171	3P-Res01 - Res HVAC Tune-up/Quality Installation	0.45	0.45	0.54	0.54
SDGE3172	3P-Res02 - Comprehensive Mobile Home (SW)	0.88	0.88	1.24	1.24
SDGE3173	3P-Res04 - K-12 Energy Efficiency Education (E3)	-	-	-	-
SDGE3174	SW-ComE - Direct Install	1.36	0.74	1.37	0.75
SDGE3175	SW-ResF - Appliance Recycling	1.08	0.58	1.46	0.79
SDGE3176	Kitchen Learning Center	-	-	-	-
SDGE3177	EM&V-Evaluation Measurement & Verification	-	-	-	-

ProgramID	ProgramName	Total Resource Cost		Program Administration Cost	
		Reported TRC	Evaluated TRC	Reported PAC	Evaluated PAC
SDGE3178	LGovPI0 - County of San Diego - ARRA Continued Programs	-	-	-	-
SDGE3179	LGovP09 - City of San Diego - ARRA Continued Programs	-	-	-	-

